



(19)

(11) Publication number: **2000**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **11006151**(51) Intl. Cl.: **G11B 5/31 G11B 5/39**(22) Application date: **13.01.99**

<p>(30) Priority:</p> <p>(43) Date of application publication: <b>28.07.00</b></p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: <b>READ RITE SMI KK</b></p> <p>(72) Inventor: <b>MATONO NAOTO</b></p> <p>(74) Representative:</p>
---	--

**(54) MANUFACTURE OF THIN FILM MAGNETIC HEAD**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To form an upper pole at the tip of an upper magnetic film with high dimensional precision corresponding to the fine working of track width, and to realize high recording density by further track narrowing in a method for manufacturing a thin film magnetic head equipped with an inductive head.

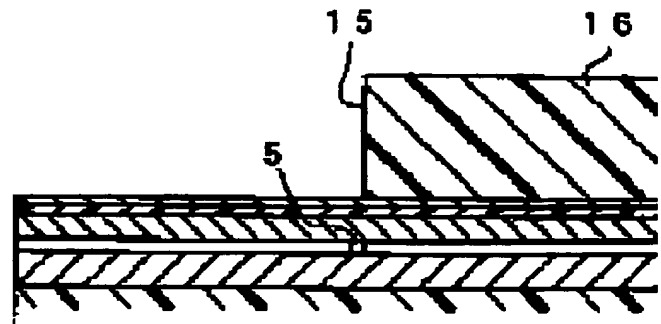
**SOLUTION:** Photo-resist is applied to a substrate 1 formed by laminating a lower magnetic film 3, magnetic gap film 7, conductive coil 11, and organic insulating layers 8 and 9, and coating a base film 12 for plating, and patterning is carried out by a conventional photolithography technique so that a resist frame 16 having a vertical wall 15 for defining one end part of the track width direction of an upper pole can be

**Best Available Copy**

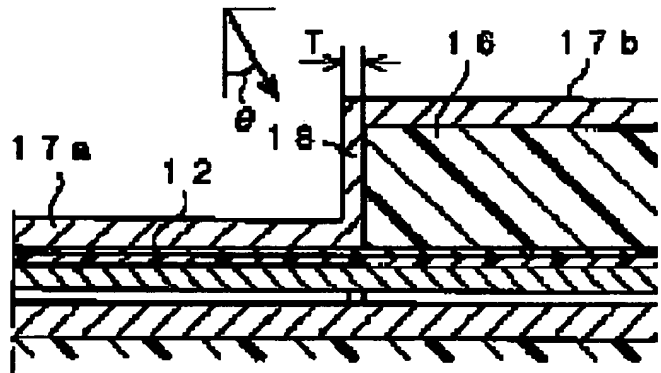
formed. Coating 18 is formed to an almost fixed film thickness on the vertical wall of the resist frame by sputtering a magnetic material. Coatings 17a and 17b on excess plane parts are removed by ion milling, and the coating 18 is adjusted in prescribed track width, and then the yoke part of the upper magnetic film is formed so as to be integrated with an upper pole part 20 on the conductive coil and the insulating films by electric plating.

COPYRIGHT: (C)2000,JPO

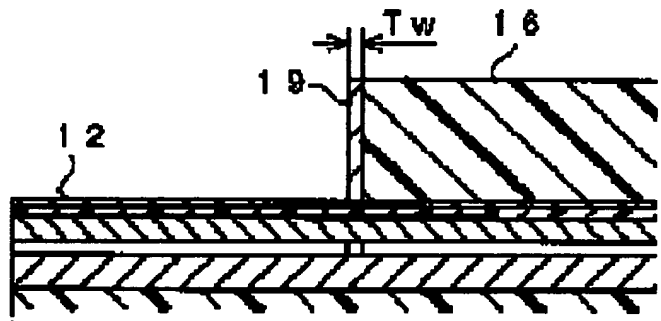
(A)



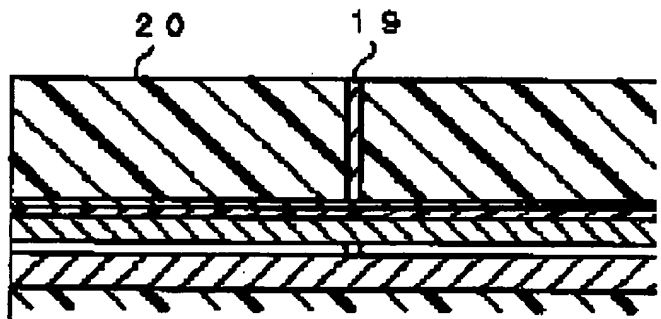
(B)



(C)



(D)



Best Available Copy